

What is claimed is:

1. A material recording and sending system comprising:
material recording and reproducing means including recording and reproducing means for recording and reproducing a material containing video and/or sound data into and from a nonlinear accessible recording medium, and a plurality of input/output processing means for processing said material inputted from outside and outputting said material to said recording and reproducing means in an assigned time slot interval, and receiving said material reproduced by said recording and reproducing means in an assigned time slot interval and outputting said material to outside;

selection means having a plurality of input channels and a plurality of output channels, said selection means conducting input channel and output channel selection so as to output said material inputted to at least one of said plurality of input channels, from at least one of said plurality of output channels and input said material to input/output processing means of said material recording and reproducing means, said selection means conducting input channel and output channel selection so as to input said material outputted from input/output processing means of said material recording and reproducing means, to at least one of said plurality of input channels and output said material from at least one of said plurality of output channels; and

operation means for ordering operation of recording said material inputted via said selection means, into said material recording and reproducing means and/or operation of reproducing said material to be outputted via said selection means, from said material recording and reproducing means,

wherein said operation means comprises display means for hierarchically displaying resources including said recording medium, said recording and reproducing means and said input/output processing means of said material recording and reproducing means, and input channels and output channels of said selection means, according to connection situations.

2. The material recording and sending system according to claim 1, further comprising:

management means for conducting arbitration of operations of said operation means with respect to said material; and

device control means for receiving a command of operation from said operation means via said management means and controlling said material recording and reproducing means so as to cause said command to be executed in real time,

wherein said management means and said device control means are also hierarchically displayed on said display means as said resources according to situations of connections to resources of said material recording and reproducing means and

said operation means.

3. The material recording and sending system according to claim 2, wherein

said management means holds data indicating current resource use states of said operation means for each of said resources, as a management table,

when a resource desired by said operation means is in an unused state, said operation means is permitted to operate the resource, and

said management means writes data indicating that the resource is being used by said operation means, into said management table and thereby conducts said arbitration of operations.

4. The material recording and sending system according to claim 2, wherein

when a fault occurs in said resources, said display means hierarchically displays connection situations as far as the failed resource and displays data including data indicating fault contents of the failed resource.

5. The material recording and sending system according to claim 4, wherein

data indicating fault contents displayed on said display

means include a resource name, a status indicating the current connection situation, an error content, and a warning content.

6. The material recording and sending system according to claim 1, wherein

when a failure has occurred in the recording means of said material recording and reproducing means among said resources, said display means further comprises a display screen in order to order rebuilding of said material to be recorded in said recording medium, and

in response to said order, said material recording and reproducing means rebuilds said material to be recorded in said recording medium.

7. A resource display method in a material recording and sending system, said material recording and sending system including:

material recording and reproducing means including recording and reproducing means for recording and reproducing a material containing video and/or sound data into and from a nonlinear accessible recording medium, and a plurality of input/output processing means for accessing said recording and reproducing means in an assigned time slot and outputting said material inputted from outside, to said recording and reproducing means, and receiving said material reproduced by

said recording;

selection means having a plurality of input channels and a plurality of output channels, said selection means conducting output selection so as to output said material inputted from an input channel, from at least one of said plurality of output channels and input said material to input/output processing means, said selection means conducting output selection so as to input said material outputted from input/output processing means, to an input channels and output said material from at least one of said plurality of output channels; and

operation means for ordering operation of recording said material into said material recording and reproducing means and/or operation of sending said material from said material recording and reproducing means,

said resource display method comprising:

first step of hierarchically displaying resources including said recording medium, said recording and reproducing means, said input/output processing means, said input channels, and said output channels, according to connection situations of said resources; and

second step of causing said display means to display detailed information of a resource selected from among resources displayed on said display means.

8. The resource display method in a material recording

and sending system according to claim 7,

wherein said material recording and sending system further includes:

management means for conducting arbitration of operations of said operation means with respect to said material; and

device control means for receiving a command of operation from said operation means via said management means and controlling said material recording and reproducing means so as to cause said command to be executed in real time,

wherein said first step further comprises the step of causing said display means to display resources including said management means and said device control means, according to situations of connections.

9. The resource display method in a material recording and sending system according to claim 7, said resource display method further comprising:

third step of responding to fault occurrence in said resources, to hierarchically display connection situations as far as the failed resource and displaying detailed information of the failed resource.

10. The resource display method in a material recording and sending system according to claim 9, said resource display

method further comprising:

fourth step of responding to said failed resource being said recording and reproducing means, to cause said display means to display an ordering screen for ordering rebuilding of said material; and

fifth step of responding to a rebuilding order given on the ordering screen displayed at said fourth step, to rebuild said material to be recorded in said recording medium and cause said recording and reproducing means to record said rebuilt material again in said recording medium.

11. The resource display method in a material recording and sending system according to claim 9, wherein said detailed information on said resource is information including a resource name, an error content, and a warning content.

12. A material recording and sending system comprising:
material recording and reproducing means including recording and reproducing means for recording and reproducing a material containing video and/or sound data into and from a nonlinear accessible recording medium, and a plurality of input/output processing means for processing said material inputted from outside and outputting said material to said recording and reproducing means in an assigned time slot interval, and receiving said material reproduced by said

recording and reproducing means in an assigned time slot interval and outputting said material to outside; and

operation means for ordering operation of recording said material into said material recording and reproducing means and/or operation of reproducing said material from said material recording and reproducing means,

wherein said operation means comprises display means for hierarchically displaying resources including said recording medium, said recording and reproducing means and said input/output processing means of said material recording and reproducing means, according to connection situations, and responding to fault occurrence in said recording and reproducing means, to conduct operation display in order to make it possible to select a resource indicating said recording medium and rebuild said material which cannot be recorded or reproduced due to said fault, and

when rebuilding is ordered on said display means, said material recording and reproducing means rebuilds said material and records said rebuilt material in said recording medium.

13. The material recording and sending system according to claim 12, wherein said display means further displays data indicating a resource name of said failed resource, an error content, and a warning content.

14. A resource display method in a material recording and sending system, said material recording and sending system including:

material recording and reproducing means including recording and reproducing means for recording and reproducing a material containing video and/or sound data into and from a nonlinear accessible recording medium, and a plurality of input/output processing means for processing said material inputted from outside and outputting said material to said recording and reproducing means in an assigned time slot interval, and receiving said material reproduced by said recording and reproducing means in an assigned time slot interval and outputting said material to outside; and

operation means for ordering operation of recording said material into said material recording and reproducing means and/or operation of reproducing said material from said material recording and reproducing means,

said resource display method comprising:

first step of hierarchically displaying resources including said recording medium, said recording and reproducing means, and said input/output processing means, according to connection situations of said resources; and

second step of causing said display means to display detailed information of a resource selected from among resources displayed on said display means.

15. The resource display method according to claim 14, further comprising:

third step of responding to fault occurrence in said resources, to hierarchically display connection situations as far as the failed resource and displaying detailed information on the failed resource.

16. The resource display method according to claim 14, further comprising:

fourth step of responding to said failed resource being said recording and reproducing means, to cause said display means to display an ordering screen for ordering rebuilding of said material; and

fifth step of responding to a rebuilding order given on the ordering screen displayed at said fourth step, to rebuild said material to be recorded in said recording medium and cause said recording and reproducing means to record said rebuilt material again in said recording medium.

17. A superimposing apparatus comprising:

material reproducing means including reproducing means for reproducing a material containing video and/or sound data from a nonlinear accessible recording medium, and a plurality of output processing means for receiving said material reproduced

by said reproducing means in an assigned time slot interval and outputting said material to outside;

superimposition information generating means for generating superimposition information including letter data or character data to be inserted in an image of said material;

control means for controlling reproducing operation of said material in said material reproducing means;

timing pulse generating means for generating a timing pulse to be used to insert said superimposition information in said material, said timing pulse being supplied to said control means and said superimposition information generating means; and

combining means for receiving said material reproduced and outputted from said material reproducing means controlled by said control means according to said timing pulse, and said superimposing information outputted from said superimposition information generating means according to said timing pulse, combining an image of said material with said superimposing information, and outputting a resultant image.

18. A superimposing method for combining superimposition information including letter data or character data with a video material, a material including video data recorded in a nonlinear accessible recording medium being reproduced by reproducing means and being inputted in an assigned time slot interval to material reproducing means formed of a plurality of

output means for outputting said material to outside, and said video material being outputted from said material reproducing means, said superimposing method comprising:

first step of generating said superimposition information;

second step of outputting said generated superimposition information and generating a timing pulse for outputting said material from said reproducing means;

third step of responding to input of said timing pulse, to cause said reproducing means to reproduce said material from said recording medium and output said material to the outside, and in addition, output said superimposition information generated at said first step; and

fourth step of combining said superimposition information outputted at said third step with the video material included in said material outputted at said third step.